

**NORTH CAROLINA DIVISION OF  
AIR QUALITY**

# Application Review

**Issue Date:** DRAFT

**Region:** Mooresville Regional Office  
**County:** Cleveland  
**NC Facility ID:** 2300377  
**Inspector's Name:** Karyn Kurek  
**Date of Last Inspection:** 06/09/2020  
**Compliance Code:** 3 / Compliance - inspection

<p align="center"><b>Facility Data</b></p> <p><b>Applicant (Facility's Name):</b> Clearwater Paper Corporation - Shelby Converting Plant</p> <p><b>Facility Address:</b>  Clearwater Paper Corporation - Shelby Converting Plant  671 Washburn Switch Road  Shelby, NC 28150</p> <p><b>SIC:</b> 2611 / Pulp Mills  <b>NAICS:</b> 32211 / Pulp Mills</p> <p><b>Facility Classification: Before:</b> Title V <b>After:</b> Title V  <b>Fee Classification: Before:</b> Title V <b>After:</b> Title V</p>				<p align="center"><b>Permit Applicability (this application only)</b></p> <p><b>SIP:</b> 15A NCAC 02Q .0516  <b>NSPS:</b> N/A  <b>NESHAP:</b> N/A  <b>PSD:</b> N/A  <b>PSD Avoidance:</b> N/A  <b>NC Toxics:</b> N/A  <b>112(r):</b> N/A  <b>Other:</b> N/A</p>																																																			
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<p align="center"><b>Facility Contact</b></p> <p>Ryan Bumgardner  EHS Manager  (704) 476-3836  671 Washburn Switch Road  Shelby, NC 28150</p>		<p align="center"><b>Authorized Contact</b></p> <p>James Sloan  Plant Manager  (704) 476-3802  671 Washburn Switch Road  Shelby, NC 28150</p>		<p align="center"><b>Technical Contact</b></p> <p>Kim Gissy  Environmental Engineer II  (704) 418-7121  671 Washburn Switch Road  Shelby, NC 28150</p>		<p><b>Application Number:</b> 2300377.20A  <b>Date Received:</b> 04/16/2020  <b>Application Type:</b> Modification  <b>Application Schedule:</b> TV-Significant</p> <p align="center"><b>Existing Permit Data</b></p> <p><b>Existing Permit Number:</b> 10139/T07  <b>Existing Permit Issue Date:</b> 04/06/2020  <b>Existing Permit Expiration Date:</b> 07/31/2021</p>																																																	
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<p><b>Review Engineer:</b> Kevin Godwin</p> <p><b>Review Engineer's Signature:</b> _____ <b>Date:</b> _____</p>				<p align="center"><b>Comments / Recommendations:</b></p> <p><b>Issue</b> 10139/T08  <b>Permit Issue Date:</b> DRAFT  <b>Permit Expiration Date:</b> 07/31/2021</p>																																																			

## **I. Purpose of Application**

This application is for a Significant Modification pursuant to 15A 02Q .0516. The facility is requesting that NCDAQ designate the eight existing air handling devices associated with Paper Machines Nos. 1 and 2 as inherent process equipment, instead of air pollution control equipment, and remove the monitoring, recordkeeping and reporting requirements associated with these devices.

Because this modification does involve a significant change in existing monitoring, recordkeeping, and reporting requirements, it is considered a significant modification. The applicant has requested that the application follow the one step processing schedule pursuant to 15A NCAC 02Q .0501(c)(1). The proposed Permit will go through a 30-day public notice and a 45-day EPA review period at this time.

## **II. Facility Description**

Clearwater Paper operates a paper manufacturing facility in Shelby, N.C. that produces bulk paper rolls and converts them into finished consumer bath tissue, paper towel and napkin paper products made for various store labels. It receives softwood-, hardwood- and eucalyptus-derived paper pulp referred to as furnish that is typically discarded bleached printing, writing, and wood containing papers - via rail and truck shipments. The origin of the pulp determines the final paper qualities - softwood provides strength, hardwood enhances softness and eucalyptus improves fluffiness.

The papermaking process involves preparing pulp fibers, dewatering, pressing, drying and finishing. Pulpers convert batches of furnish into slurries of well separated fibers. Polyvinyl alcohol is added to the fibers to improve the papermaking characteristics. The paper machine forms wet paper by pressing the pulp slurry between two rotating fabric belts that travel over vacuum slots to remove water and dries the paper through two natural gas direct-fired through-air-dryers [TAD] and a steam heated pressured dryer. There are four parallel inherent devices – each with a separate emissions release point. The wastewater is collected, sent to a dissolved air floatation clarifier, and discharged to a publicly owned treatment plant. At the converting facility, parent paper rolls are loaded and fed into a winding machine. The papers are embossed and fluffed as needed, placed on rolls and cut as appropriate. All product lines require the use of small amounts of glue and date coding inks, which emit small quantities of volatile organic compounds (VOCs), hazardous air pollutants (HAPs), and North Carolina toxic air pollutants (TAPs).

## **III. Application Chronology**

April 16, 2020	DAQ received application for a Significant Modification
August 7, 2020	Draft to DAQ Supervisor
August 13, 2020	Draft to the applicant and Mooresville Regional Office (MRO)

## **IV. Statement of Compliance**

- A. The most recent inspection report found in IBEAM Documents is dated June 9, 2020. According to the report by Ms. Carlotta Adams of the MRO,

“Because of COVID-19, no onsite visit has been performed. This phone call took place on June 9, 2020. Mr. Ryan Bumgardener, EHS Manager, and Ms. Kim Gissy, Environmental Engineer were on the phone call. Recordkeeping and monitoring records were provided by email. No equipment was observed.

Based on my conversation and the emailed information provided, the facility appears to be in compliance with recordkeeping and recording requirements that could be observed as part of this partial compliance evaluation. Compliance with other permit conditions will be determined at a future date when a field investigation can be conducted.”

The five-year compliance history is outlined in the inspection report as follows:

An NOV was issued to the facility on January 6, 2020 for circumvention of control devices, 2 events, August 2019 & Sept. 2019. No civil penalty was assessed.

An NOV/NRE was issued to the facility on June 21, 2018 for failure to perform the required control device monitoring on paper machine No.1 (ID No. CPDPM01) for the month of April 2018. A civil penalty was assessed and collected from the facility.

An NOV for monitoring and recordkeeping was issued March 2, 2018 to Clearwater Paper for not completing the monthly visual inspection for February 2017 of the paper machine No. 1 (ID No. CPDPM01), with associated collection system.

A NOD for reporting was issued March 2, 2018 to Clearwater Paper for not reporting the monthly visual inspection deviation of paper machine No. 1 (ID No. CPDPM01), with associated collection system, for February 2017.

Based on a previous compliance inspection report dated May 22, 2019 by Ms. Karyn Kurek, the facility appeared to be in violation of 02D .0515 "Particulates from Miscellaneous Industrial Processes" for not maintaining the required production records for Paper Machine No. 2 (ID No. CPDPM02-Plant 2) and in violation of 02D .0524, NSPS-Subpart Dc for failure to maintain the required monthly fuel usage records for Boiler No. CPDBOIL02 (Plant 2) and will be issued a Notice of Deficiency for recordkeeping for these two sources.

The inspection report includes a Summary of Changes needed to the permit as follows:

- TAD Mist Exhaust Separator (249 square feet, ID No. CPDTADMISTMES#2) is not installed on this line (Line #2),
- PVOH make-down system (ID No. CPDS29) was not installed with no plans to install this unit and should not be included in the modified permit,
- ID No. CPDBOIL#02 Natural gas-fired boiler No. 2 equipped with low-NOx burners is not rated at 98 million Btu per hour. The faceplate is 96.7 million Btu per hour,
- ID No. CPDS26# Offline printer is not installed at the facility and should not be included in the permit modification, and
- ID No. IS-CPDFP02 Diesel-fired fire pump engine No. 2 (526 brake hp, 448 kW rated capacity) is installed in Plant 2. Notification of operation was received December 17, 2018. The faceplate indicated a brake hp of 176.8 and 220 kW and should be corrected in the permit modification.

These changes were addressed with this issuance of Permit No. 10139T07.

B. Since Permit No. 10139T06 was issued, the following compliance issues have occurred:

On June 21, 2018, the facility was issued a Notice of Violation and Recommendation for Enforcement for violation of Specific Condition 2.1 A.1.d.i. which requires the Permittee to conduct monthly visual inspections of system ductwork and material collection units for Paper Machine No. 1 (CPDPM01) with associated controls. At the time of inspection on June 6, 2018, the facility was unable to provide records showing the inspection was conducted in April 2018. A civil penalty was assessed on July 24, 2018.

On October 29, 2019, the facility submitted a deviation report for the third quarter of 2019. The report cited two deviations as follows:

- During a manufacturer recommended inspection on August 2, 2019 it was discovered that CPDTADMISTMES exhaust fan was damaged and broken loose from the shaft. Emission source CPDPM01 continued to operate without emissions being controlled. Repairs to the exhaust fan were completed and normal operation was restored on August 16, 2019.
- CPDFORMERMES exhaust fan failed to start up along with CPDPM01 following a planned down-day on September 17, 2019. The fan was repaired and restored to operation on September 18, 2019.

On January 6, 2020, the facility was issued a Notice of Violation relating to the October 29, 2019 deviation report.

## V. Rational for Changes

According to the application, the devices are inherent process equipment, as that term is defined in 40 CFR 64.1:

Inherent process equipment means equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations. Equipment that must be operated at an efficiency higher than that achieved during normal process operations in order to comply with the applicable emission limitation or standard is not inherent process equipment. For the purposes of this part, inherent process equipment is not considered a control device.

“Although the devices perform co-beneficial emissions control, the purpose of each of these devices is to remove water droplets from the paper machines as the mat (wet paper) is dried. Typical paper machine design includes a mist eliminator system at the paper machine’s drying stage. These inherent process devices are installed and are operated to ensure the proper and safe functioning of the paper machines and to achieve production specifications. The components are not designed or built for the primary purpose of emissions control. Even though each device removes some particulate matter, the Clearwater devices are not required to comply with the applicable regulatory limits for particulate matter or opacity from each paper machine, as demonstrated below.” With respect to compliance, for either Paper Machine No. 1 (CPDPM01) or Paper Machine No. 2 (CPDPM02), the process weight-based PM limit for each machine calculated according to 15A NCAC 02D .0515 is:

$$4.10 \times (14 \text{ ton/hr})^{0.67} = 24.0 \text{ lb PM/hour}$$

Based on the National Council for Air and Stream Improvement, Tech./ Bulletin No. 1020, Table 8.4. Median of Emission Factors for High Flow Tissue Machines, March 2013 Update, the condensable PM emission factor is 0.227 lb PM/ton and the filterable PM factor is 0.73 lb/ton, for a total PM emission factor of 0.957 lb PM/ton.

The maximum uncontrolled PM emission rate from each machine is lower as shown below:

$$\begin{aligned} &\text{Paper Machine No. 1} \\ &(0.957 \text{ lb PM/ton}) * (14 \text{ tons per hour}) = 13.4 \text{ lb PM/hour} \\ &\text{Paper Machine No. 2} \\ &(0.957 \text{ lb PM/ton}) * (14 \text{ tons per hour}) = 13.4 \text{ lb PM/hour} \end{aligned}$$

The two paper machines also comply with the opacity limits under 15A NCAC 02D .0521.

DAQ agrees that the devices are inherent to the paper machines and do not require permitting. The devices and associated monitoring, recordkeeping, and reporting will be removed from the Permit.

## VI. Table of Changes

The following table provides a summary of changes made to the Clearwater Paper Corporation - Shelby Converting Plant Air Quality Permit No. 10139T07:

Pages	Section	Description of Changes
N/A	Insignificant Activities Table	Included: diesel-fired fire pump engine No. 3 (ID No. IS-CPDFP03) and updated the table based on the applicant’s comments.

Pages	Section	Description of Changes
3 and 4	Table of Permitted Emission Sources	<p>Removed the following equipment from the Control Device column of the table for Paper Machine No. 1:</p> <p>Former Mist Exhaust Separator (123 square feet), TAD<sup>1</sup> Mist Exhaust Separator (57 square feet), Spray Boom Mist Exhaust Separator (7 square feet), and Dust Venturi Scrubber-Separator (95 square feet).</p> <p>Removed the following equipment from the Control Device column of the table for Paper Machine No. 2:</p> <p>Former Mist Exhaust Separator (104 square feet), Softener Containment Mist Separator (10 square feet), Glue Containment Exhaust Separator (20 square feet), and Wet Dust Exhaust Separator (133 square feet).</p>
5	2.1 A.	Removed the equipment mentioned above from the Source Description.
6	2.1 A.1. d., e., g., and h.	For Paper Machines No. 1 and No. 2, removed Monitoring, Recordkeeping, and Reporting requirements for the equipment mentioned above.
14	3.0	Updated General Conditions to most recent shell version (v5.5, 08/25/2020).

## VII. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit will be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice will be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant will be provided to EPA for a 45-day review period. Also pursuant to 02Q .0522, a notice of the DRAFT Title V Permit will be provided to each affected State at or before the time notice provided to the public under 02Q .0521 above.

## VIII. Other Regulatory Considerations

- A P.E. seal is required for this application and was included (ref. Ted S. White, P.E. Seal No. 16884, April 16, 2020).
- A zoning consistency determination is not required for this application.
- A permit fee of \$988.00 is required for this application and was included.
- According to the application, Clearwater has determined that no chemicals are stored in a quantity above the 112r triggering threshold and thus is not subject to 112r requirements.
- The application was signed by Mr. James Sloan, Plant Manager on April 16, 2020.

## IX. Recommendations

The Significant Modification application for Clearwater Paper Corporation – Shelby Converting Plant, Cleveland County, NC has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. The Public Comment and EPA review periods expired on XXXX with XXXX comments received. Therefore, DAQ will make a recommendation on issuance of Air Permit No. 10139T08 following expiration of the Public Comment and EPA review period.